IDENTIFYING BEST PRACTICES & ESTABLISHING UNIT RATES: A CASE STUDY

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THE WIC PROGRAM

- *Funded by the United States Department of Agriculture (USDA)*
- *Administered by the DOH WIC Services Branch*
- *Mission: To safeguard the health of low-income women, infants and children up to age 5 who are at nutritional risk by providing nutritious foods to supplement diets, breastfeeding support, information on healthy eating and referrals to health care.*
- *www.fns.usda.gov/wic www.hawaiiwic.com*

WIC Improves

- *birth outcomes → health cost savings*
- *diet & diet-related outcomes*
- *infant feeding practices*
- *immunization rates & medical home*
- *cognitive development*
- *preconceptional nutritional status*

For example: it costs over $14,000 per pound to raise a very low birthweight (<3.25 lbs) baby to normal weight (7 lbs), but only $483 for a pregnant woman to receive WIC benefits.

National studies indicate a return of about $2 to $4 in Medicaid savings for each $1 spent on a pregnant woman in WIC.

WIC Food Package (Nutrients→Foods)

- *Protein*
- *Calcium*
- *Vitamins A,C & D*
- *B Vitamins*
- *Iron*
- *Fiber*

- *Milk*
- *Cheese*
- *Eggs*
- *Peanut Butter*
- *Beans/Peas/Lentils*
- *100% fruit juice*
- *Selected Cereals*
- *Infant Formula & Cereal*
- *Tuna/Salmon & Carrots for exclusive breastfeeders*

Hawaii WIC Program FFY2004

- *Food funds spent = $26,892,177*
- *Formula rebate = $6,229,913*
- *Net food spent= $20,662,264**
- *Nutrition Services & Administration (NSA) funds spent = $7,934,083*
- *Total participants = 398,653***

40,647 pregnant women
32,321 breastfeeding women
24,004 postpartum women
96,972 infants
203,835 children

**an average monthly food benefit of $51.83*

***an average of 33,221 individuals per month*

Inadequate NSA Funding

- *States do not have sufficient NSA funds to support participation levels while maintaining, protecting and improving client services while complying with program integrity and/or USDA initiatives*
- *Each minute of an unfunded mandate (voter registration, Earned Income Tax Credit, immunization screening) results in the loss of 125,000 hours of nutrition education interventions annually.*

Program Delivery via Local Agencies (LA)

- *State-run (Honolulu, Leeward, Wahiawa, Windward, Kauai, Maui, Hilo/Kona)*
- *Purchase-of-Service (POS) 103F contracts*
  **Community Health Centers (Kalihi-Palama,Kokua Kalihi Valley, Waimanalo, Waianae Coast, Community Clinic of Maui, Bay Clinic, Na Puuwai)*
  **Hospital (Kapiolani Women & Children's Medical Center, Lanai Community Hospital)*
  **4-year contracts for FFY2004 thru 2007*
  **FFY2004 budget based on $11.00/participant/mo and modified to $11.50 effective 03/01/2004*
  **FFY2006 budget based on $11.50/participant/mo*

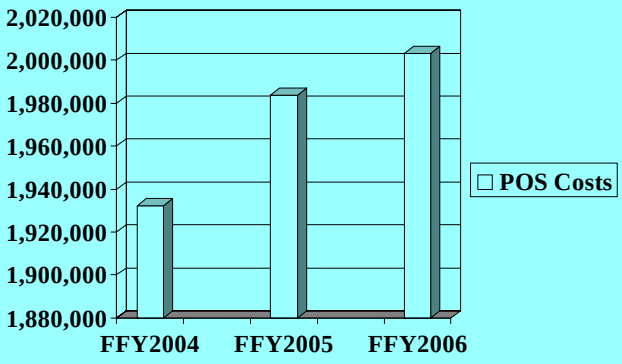
Salary Cost Analysis FFY 2002

	Salary & Fringe	*Caseload*	*Salary + Fringe per Participant*
State-run	*$2,801,600* *(weighted ave of 21.19% and 32.22%)*	*296,633*	*$11.84 ave* *Range $14.03-$9.37*
POS	*$1,162,781* *(range 16.49% to 25.34%)*	*157,217*	*$8.75 ave* *Range $7.46 –$11.27*

FFY2004 Actual Per Client Rate

Actual NSA Paid	*Actual Caseload*	*Actual Per Client Paid*
$1,932,168	*166,984*	*$11.57 ave* *range $11.01 to $13.38*

POS Costs FFY 2004 to 2006



UC/BP History

- ***Work on best practices for Louisiana & New Hampshire WIC was presented at the National WIC Association Annual Meeting which seemed to address questions we had been asking.***
- ***How to best serve low-income families with children? State-run vs POS LAs in the current environment (unions, bureaucracy)***
- ***What is fair reimbursement?***
- ***When can assigned caseload & reimbursement be modified up or down?***
- ***What is the ideal staffing ratio and staffing mix?***
- ***What are no-show rates & how can rates be improved?***
- ***How can costs be lowered by increasing volume with current resources without lowering staff/client satisfaction or clinical outcomes?***

UC/BP Funding

- *WIC Management Team decided to apply for USDA Operational Adjustment funds*
- *USDA approves project funding*
- *RFP developed*

UC/BP Request for Proposal (RFP)

DO NOT REINVENT THE WHEEL.

- *Asked Louisiana and New Hampshire WIC for their RFP for Best Practices & adapted for Hawaii*
- *Added Unit Cost component*
- *Three proposals were received, selected HealthMetrics*

UC/BP GOALS

- *Establish benchmarks & "Best Practice" processes (a practice that reduces costs while optimizing quality outcomes, client/staff satisfaction.*
- *Provide staff with an understanding of each site's effectiveness relative to the Best Practice.*
- *Provide recommendations to improve performance (cost, clinical quality, client satisfaction, staff satisfaction).*
- *Analyze current reimbursement/costs and provide recommendations.*
- *Develop appropriate staffing model.*

UC/BP Tools

1. *WIC Process Time Log*
2. *Clinical Data Collection Worksheet (Woman, Infant or Child)*
3. *Cost Worksheet (staff expenses, management costs, direct expenses, visit volume, space costs, overhead)*

USE INFORMATION SYSTEMS DATA WHENEVER POSSIBLE.

Methodology

- *Analyzed one child certification/recert visit*
- *Analyzed pregnant woman certification visit*
- *Obviously, many WIC families have multiple children on the program, or have the mother and children but the contractor could not analyze all kinds of visits.*

Presentation

Best Practices

Feb. 16, 2005 Contractor presented to 8 participating sites

Feb. 17, 2005 Contractor presented via videoconference to all LAs

Unit Cost

July 29, 2005 Final draft discussed at quarterly POS meeting

By September 30, 2005 Disseminate information to all LAs

Process Variation

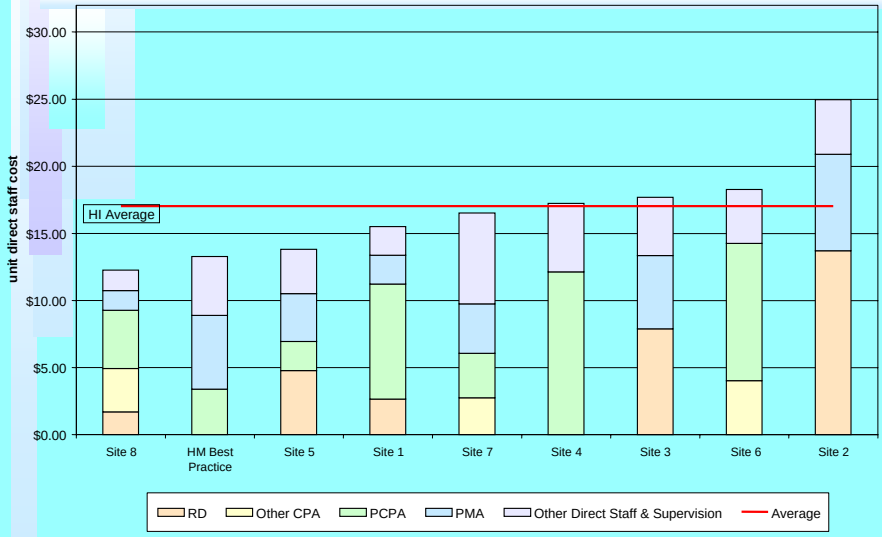
Child Certification/Recertification Visit

	Intake	Height Weight Blood	Counseling	Check Printing	Total Staff Time	Total Wait Time
Best Practice	PMA 7	PMA 5	PCPA 9	PMA 4	25	
Process A	PCPA 1	PCPA 5	RD/PCPA* 10	PMA 4	20	3
Process B	PMA 2	PMA 7	RD 8	PMA 4	21	3
Process C	PMA 4	PMA 3	RD/PCPA* 14	PMA 4	25	16
Process D	PMA 6	PMA 6	PCPA 9	PMA 5	26	3
Process E	PMA 3	RD/PCPA* 11	RD/PCPA* 10	RD/PCPA* 5	29	12
Process F	PCPA 7	PCPA 8	RD/PCPA* 14	PCPA 2	31	3
Process G	PMA 11	PMA 1	RD 17	PMA 3	32	35
Process H	PCPA 12	PCPA 5	PCPA 16	PCPA 3	36	6

Notes: 1. Processes A, B, F, and G do not do bloodwork on site.
2. Time for Orientation Video is not included.
3. Staff ratios vary for those sites with split staff (as indicated with an asterisk).

Direct Staffing Costs

Child Certification/Recertification Visit



Detailed Adjusted Unit Costs

Food Instrument (FI) Pickup Visit

	Site 3	Site 7	Site 4	Site 8	Site 6	Site 1	Site 5	Site 2	HI Min	HI Max	HI Average
RD	$0.00	$0.00	$0.00	$0.00	$0.00	$5.25	$0.00	$10.33	$0.00	$10.33	$1.95
Other CPA	$0.00	$0.25	$0.00	$1.54	$6.44	$0.00	$0.00	$0.00	$0.00	$6.44	$1.03
PCPA	$0.00	$1.64	$3.95	$1.91	$0.65	$4.20	$5.18	$0.00	$0.00	$5.18	$2.19
PMA	$1.27	$1.58	$0.00	$1.30	$0.00	$1.12	$5.49	$3.22	$0.00	$5.49	$1.75
Direct staff cost	***$1.27***	***$3.47***	***$3.95***	***$4.75***	***$7.09***	***$10.58***	***$10.66***	***$13.56***	***$1.27***	***$13.56***	***$6.92***
Total visit staff time	***3***	***10***	***10***	***11***	***16***	***24***	***31***	***24***	***3***	***31***	***16***

Best Practices Outcomes

- *Overall client satisfaction was between very and completely satisfied, with significant differences between sites.*
- *Overall staff satisfaction ranged from somewhat to almost completely satisfied.*
- *Overall clinical outcomes were good and largely comparable between sites.*
- *Costs varied greatly from $16.83 to $38.77 for a one child cert/recertification visit.*

Primary Drivers of Client Satisfaction

- *Treatment by staff*
- *Received pertinent nutrition information*
- *Convenience of clinic location*
- *Convenience of appointment time*
- *Amount of time spent waiting*

Satisfaction was NOT correlated with actual time spent with staff. A longer visit does not improve client satisfaction.

Primary Drivers of Staff Satisfaction

- *Amount of paperwork*
- *Amount of time clients wait*
- *Participant flow through the clinic*

Clinical Outcomes

- *Retrospective chart review of 20 children and 20 pregnant women.*
- *Client surveys indicate 95% "very clearly" understand most nutrition education. The most variation occurred for "what to feed your baby/child".*
- *Good outcomes for weights, heights and bloodwork.*
- *Excellent outcomes for breastfeeding.*
- *Lower than baseline scores for fruit & vegetable consumption for women.*

Significant Drivers of Cost

- *Time spent on dietary assessment and counseling portion of the visit.*
- *Use of Registered Dietitians (RD) on low risk child visits.*
- *Percentage of time not spent seeing clients.*

Best Practices Recommendations

- *Implement open access scheduling to maintain low access times & lower staff time not spent with participants.*
- *Send participants paperwork, including the diet recall form and rights & responsibilities, to fill out at home prior to initial appointment. Where feasible, steer participant to website to download the forms.*
- *Have participants watch the orientation video only where additional education is indicated or upon participant request.*
- *Establish the routine interval for follow-up visit to be 3 months rather than 2 months.*

Recommendations (cont'd)

- *Assign a paramedical assistant (PMA) to perform the intake/eligibility step at the front desk, separate from the nutrition education counseling.*
- *Separate height/weights and bloodwork into one step, completed by a different staff member in a clinical area. Simultaneously, a paraprofessional calculates diet recall and prepares for nutrition counseling.*
- *Have paraprofessionals, rather than registered dietitians, counsel all low-risk participants with a brief preparation time for a focused session.*
- *Separate the check printing and distribution from intake/eligibility occurring after nutritional education and performed by a PMA.*

Best Practice: Open Access Scheduling

- *Scheduling drives participant flow and clinic productivity*
- *Decrease non-direct care time*
- *Shorten access time*
- *Improve show rate*

- *Do not make follow-up appointments months in advance (limited resource families often do not know schedules 2-3 months ahead & may rely on others for transportation)*
- *Confirm appointments in advance*
- *Partial open access scheduling may be more acceptable to staff*
- *Possible cultural issue?*

Best Practice: Paperwork in Advance &/or Website Download

- *Perform brief financial eligibility screen at time of initial call*
- *Have all forms and list of what to bring on website*
- *Reminder call*
- *WIC clients move often, change phone numbers often & may not have access to the Internet*

Best Practice: Certification Clinic Flow

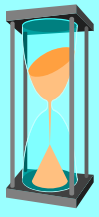
STEP	BEST PRACTICE MODEL
Eligibility Review	Intake Staff: 7 minutes Determine eligibility, ensure diet recall is completed, go over referrals, sign rights & responsibilities, provides information on Program.
Anthropometrics	Health Tech: 5 minutes Check immunizations, measure height/weight, perform bloodwork.
Nutrition Ed & Counseling	Nutrition Counselor: 9 minutes Review diet recall, lab results, ht/wt, identifies risk factors, care plan and recommendations, provide focused nutrition ed, determine goals.
Check Distribution	Check Staff: 4 minutes Prints checks, explains use; makes appointments; obtains signatures.

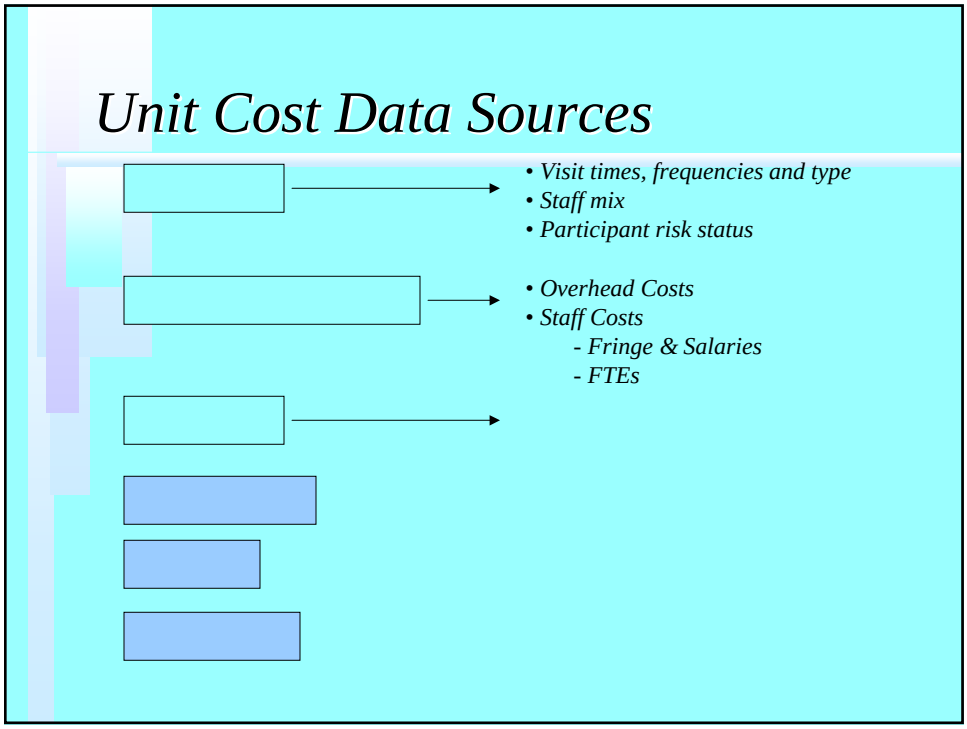
Best Practice: Food Instrument Pickup Clinic Flow

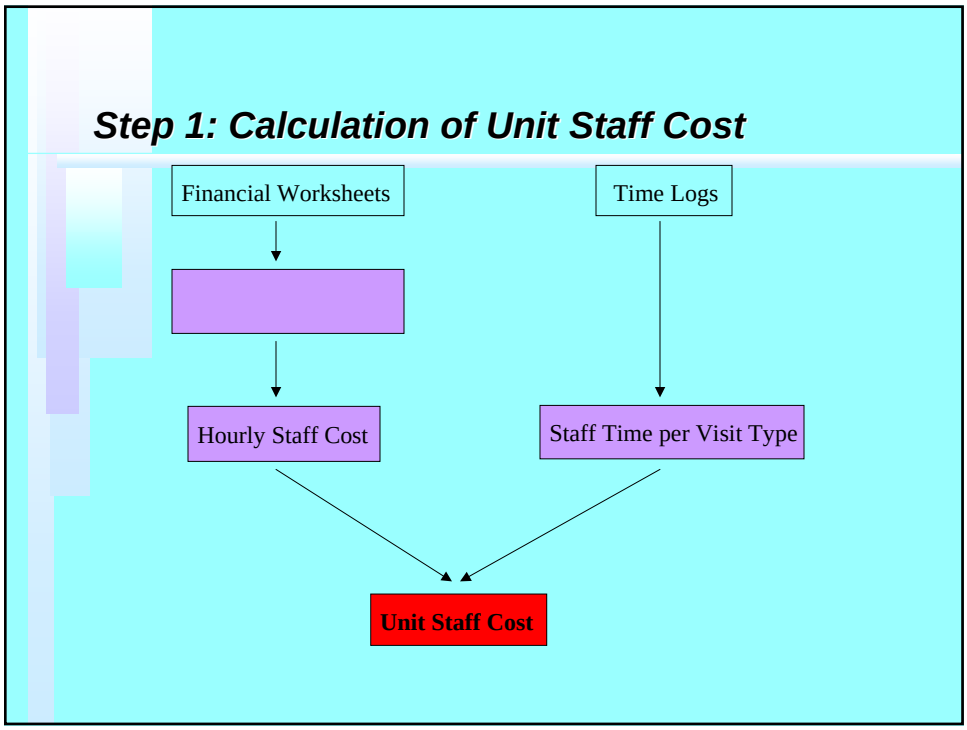
STEP	BEST PRACTICE MODEL
Reception	PMA/Clerk: 1 minute Triage to RD only when clinically indicated; schedule next appointment
Anthropometrics	PMA: 2 minutes Take height/weight only when clinically indicated
Nutrition Ed & Counseling	PCPA: 5 minutes Counsel based on risk code, address client-specific needs, provide additional written education materials
Check Distribution	PMA/Clerk: 5 minutes Print during nutrition education

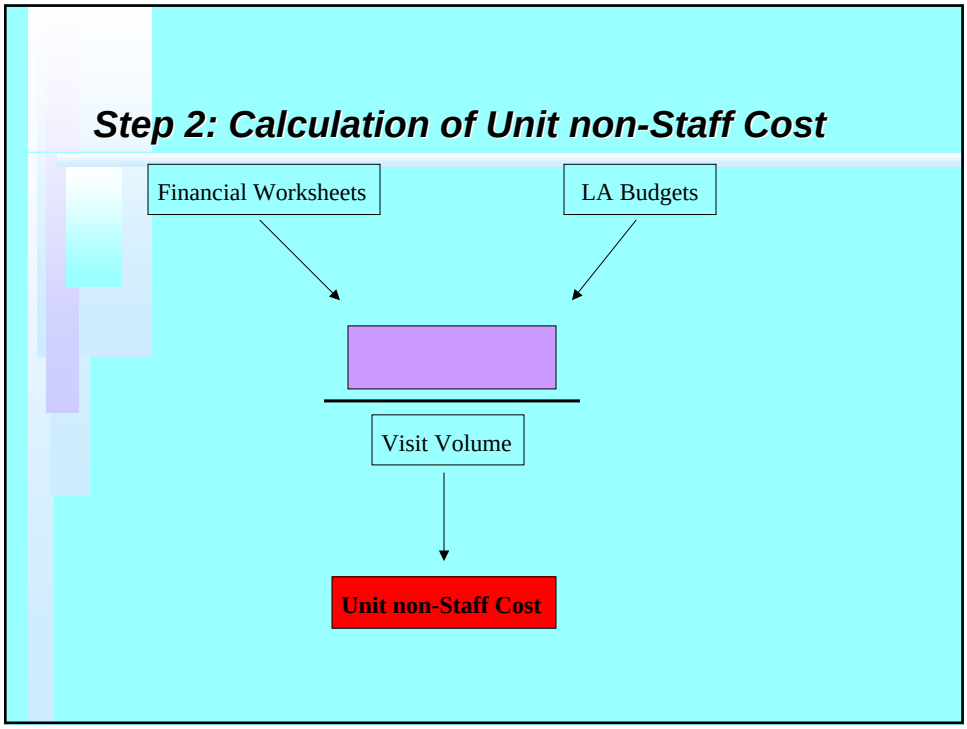
Best Practice: Trimonthly Issuance

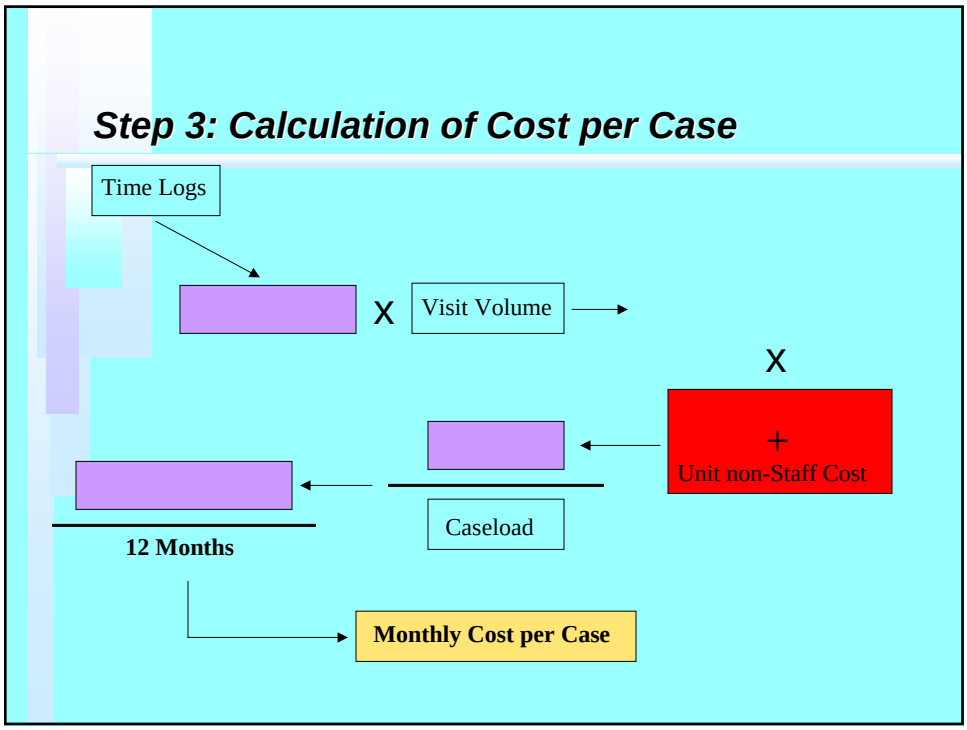
- *Outcomes are as good or better with 3-month follow-up vs. 2-month.*
- *Longer interval saves staff time & opens appointments, shortens access time.*




Unit Cost Data Sources
• Visit times, frequencies and type
• Staff mix
• Participant risk status
• Overhead Costs
• Staff Costs
- Fringe & Salaries
- FTEs


Step 1: Calculation of Unit Staff Cost
Financial Worksheets
Time Logs
Hourly Staff Cost
Staff Time per Visit Type
Unit Staff Cost


Step 2: Calculation of Unit non-Staff Cost
Financial Worksheets
LA Budgets
Visit Volume
Unit non-Staff Cost


Step 3: Calculation of Cost per Case
Time Logs
X
Visit Volume
X
+
Unit non-Staff Cost
Caseload
12 Months
Monthly Cost per Case

Drivers of Cost

Driver	Best Practice	Hawaii Average
Downtime	15%	20%
Visit Time	22.2 minutes	25.2 minutes
Staff Mix	PCPAs for all LR child cert/recert and LR FIP visits	Mixture of PCPAs and RDs
Visits per Case	6.60	7.33
Cost per Case	$8.95	$11.49

Assumptions

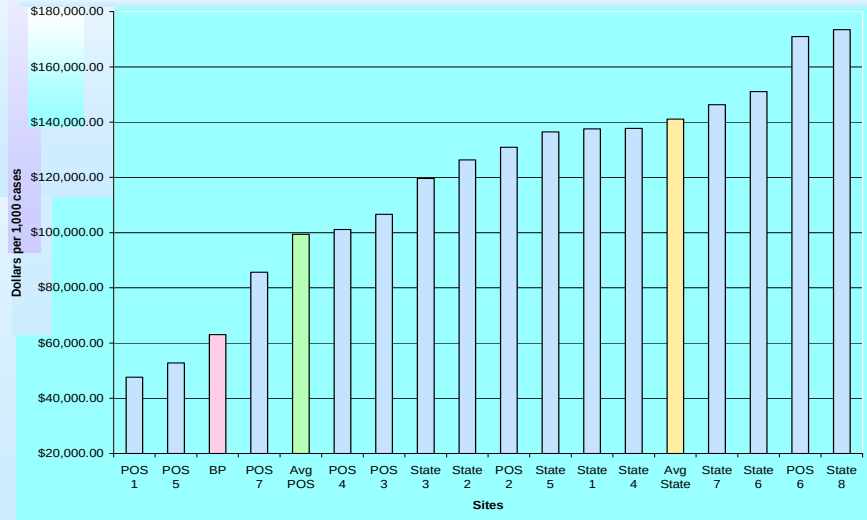
- Best Practice visit time for a low-risk single child recertification was used as a baseline by which to scale all other visits
- The Best Practice staffing model was applied to appropriate steps
- Non-direct participant care is 15%
- The number of visits per case is 10% lower than the actual average among the seven Hawaii WIC LAs examined for this project

Range 5.14 – 9.16
Average 7.33
Best Practice 6.60

Unit Cost Findings

- *Average monthly cost per case $11.49*
  Wide variation due to different processes & staff mix. Excludes one site's overhead costs (outlier of >30%).
- *Best Practice monthly cost per case: $8.95*
- *Opportunity for savings: **22%***

Direct Staffing Costs per 1,000 Cases



Reimbursement Recommendations

- *The current rate of reimbursement of $11.50 per case per month should* not *be adjusted at this time.*
- *Adjustments to the current rate of reimbursement should not be considered until a site can demonstrate that they are close to the Best Practice process including:*
  1. *Visit time*
  2. *Non-direct client care time*
  3. *Visits per case*
  4. *Staff mix (at least 75% of case cost)*
- *Remote satellite clinics incur additional costs, including travel time, set up/breakdown time, air travel, rental car, etc.*

Adjustments to Caseload/Budget

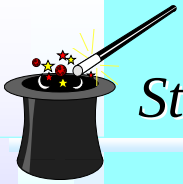
- *What is a practical & fair method to adjust LA caseload (and therefore budget)?*
- *Idaho: LA placed on "probation" for a quarter. Adjust payment downward if caseload is <97% of agreement @ 3rd consecutive quarter. Adjust upward immediately if caseload >102% for a quarter.*
- *Hawaii's contract modification process and required budget revisions may not make this practical.*

Staffing Ratios

- *RDs are used to see high-risk clients*
- *Paraprofessionals provide dietary assessment and counseling to low-risk clients.*
- *15% non-direct client time used for personnel/administrative work, ordering supplies, etc.*

Staffing Structure

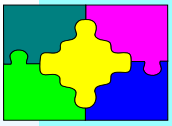
Monthly Caseload	*Non-Supervisory Full-Time Equivalents (FTEs)*	*Supervisory FTE*
100	*0.17*	*0.02*
500	*0.85*	*0.10*
1000	*1.7*	*0.20*
2000	*3.41*	*0.40*
4000	*6.82*	*0.80*



Staffing Structure in Real Life

- *POS assigned 100, achieved 75.8%**
  FTEs from .14 to .24 + contract RD flown in, no satellite (ideal for 100 = 0.19)
- *State-run assigned 2275, achieved 83.065**
  ave 6.5 FTEs, 5 satellites 13 days each month (ideal for 2000 = 3.81)
- *POS assigned 4300, achieved 99.7%**
  ave 12.94 FTEs, one satellite 2x week (ideal for 4000=7.62)

**period of May 2004-April 2005*



Challenges

- *How to optimize the relationship between non-profits & State Agency*
  - **Non-profits can be more innovative;*
  - **Non-profits are more flexible;*
  - **Non-profits can leverage private resources.*
- *Lack of POS to serve rural areas*
- *Geographic challenges*
- *Inefficiency of scale*
- *Federal & State bureaucracy*
- *Union issues for the State*
- *Burgeoning information systems costs (>$640,000 in FFY 2004)*

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